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Improving Dyadic Coping in Couples With a Stress-Oriented Approach

A 2-Year Longitudinal Study

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This study sought to assess the effectiveness of a marital distress prevention program for couples by examining how marital quality, especially marital competencies such as dyadic coping, could be improved by means of a prevention program focusing on the enhancement of coping resources (Couples Coping Enhancement Training). The study consisted of 59 couples in the intervention group and 59 couples in the matched comparison group. The results reveal that it is possible to improve marital quality, especially marital competencies, by means of one short-term intervention lasting 18 hr. However, the effects decreased after 2 years, raising the importance of booster sessions in helping to maintain effects over a longer period of time.

Keywords: prevention; marriage; dyadic coping; marital quality

The high divorce rates in Europe and the United States are a major sign of the current vulnerability of intimate relationships. In the United States, more than 50% of marriages end in divorce (Gottman, 1994; Sayers, Kohn, & Heavey, 1998) as do 30% to 50% of marriages

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in European countries (Eurostat, 2001). However, in addition to the high rate of marital dissolution, it is alarming that 25% of the marriages that do not end in divorce are nevertheless experienced as distressed (Döring, Baur, Frank, Freundl, & Sottong, 1986). Research based on longitudinal studies indicates that the negative course of many marriages is often because of a lack of skills among both partners. In particular, deficiencies in dyadic competencies, such as communication skills, problem-solving capacities, and coping, are important predictors of marital dissolution (for an overview, see Karney & Bradbury, 1995).

Communication skills have repeatedly been reported as main predictors of marital quality and stability (Gottman, Coan, Carrère, & Swanson, 1998; Weiss & Heyman, 1997). Additionally, a longitudinal study carried out in the context of stress and coping in couples has yielded strong evidence for the idea that communication and problem-solving competencies are not the only important predictors for marital dissolution. Several studies conducted by Bodenmann and colleagues (Bodenmann, 2000, in press; Bodenmann & Cina, 2000) show that both individual and dyadic coping play an important role in marital quality and stability. Dyadic coping is defined as the efforts of one or both partners to engage in a stress management process aimed at either creating or restoring prior physical, psychological, or social homeostasis within both of the partners, individually, and within the couple as a unit. Stress in these instances refers to: (a) stress experienced primarily by one partner, which in turn affects the relationship (i.e., indirect dyadic stress such as work stress experienced by one partner and spilling over into the couple’s relationship); and (b) stress that is experienced directly within the couple (e.g., illness of a child). These different types of stress trigger different forms of dyadic coping, such as common dyadic coping (whereby both partners are directly affected by the stressful event and participate in the coping process symmetrically or complementarily), supportive dyadic coping (where only one partner is exposed to the stressful encounter, initially, but whereafter he or she is assisted by the other in coping effectively with the stressful event), and delegated dyadic coping (where one partner is primarily affected by the stressful event and asks the other to take over several tasks to reduce his or her levels of stress). Dyadic coping can also take negative forms and includes categories...
such as hostile dyadic coping (e.g., support combined with disparagement, distancing, mocking, sarcasm, open disinterest, or minimizing the seriousness of the partner’s stress), ambivalent dyadic coping (when one partner supports the other unwillingly or with the attitude that his or her contribution should be unnecessary), and superficial dyadic coping (support that is insincere, such as asking questions about the partner’s feelings without listening or supporting the partner without empathy; Bodenmann, in press).

Bodenmann (2000) showed that couples possessing low coping competencies (individual as well as dyadic coping) tend to experience inadequate marital interaction more often. In turn, this contributes to a negative development of their relationship over time, thereby creating a higher risk for divorce. These findings suggest that it might be beneficial to enhance coping skills in both partners, in addition to the more traditional focus of marital distress prevention programs (communication and problem-solving skills). To date, the most prominent marital distress prevention programs place their emphasis on the improvement of communication (for an overview see Berger & Hannah, 1999). A major drawback of these approaches is that they are primarily suited for new relationships and have limited effectiveness once a relationship is established, or once long-term distress and dissatisfaction have set in (Sullivan & Bradbury, 1997). Even in newlywed couples, lasting effects could not always be demonstrated and it often seems difficult to alter communication patterns that have become set over a longer period of time (Halford, Markman, Kline, & Stanley, 2003). Poor communication may result from preexisting deficits in communication skills or could be because of communication competencies that break down in stressful situations. Thus, it is important not only to focus on communication skills but also on coping abilities to ensure adequate communication in stressful situations.

The Couples Coping Enhancement Training (CCET; Bodenmann, 1997a; Bodenmann & Shantinath, 2004) is the first couple distress prevention program to go beyond communication skills training and problem solving and also emphasizes coping with stress within the context of marital-skills training (see also Halford, Gravestock, Lowe, & Scheldt, 1992).

The present study evaluates the effectiveness of the CCET with regard to marital quality and dyadic coping within a 2-year time span.
following the training. We expected to find an improvement of both of the above mentioned indicators of marital functioning in the intervention group and no change (or even a deterioration) among couples in the comparison group. Compared to other studies seeking to improve marital satisfaction (Hahlweg, Markman, Thurmaier, Engl, & Volker, 1998; Markman, Renick, Floyd, Stanley, & Clements, 1993), this study differed in two major ways. First, the participants in the study were not young couples who were about to be married, or recently married. The couples in this study had a mean age of about 40 years old and had been married for quite a long period of time (approximately 15 years). Second, unlike couples starting out in a relationship, study participants’ marital satisfaction was already rather low at the start of the study. Therefore, this study is more comparable with work carried out with high-risk couples, as reported by Halford, Sanders, and Behrens (1996) and Van Widenfelt, Hosman, Schaap, and Van der Staak (1996), who evaluated the effectiveness of the Prevention and Relationship Enhancement Program among distressed or high-risk couples. Neither of these earlier studies found significant improvement with regard to marital quality. With this in mind, we sought to examine (a) whether our approach would be able to induce positive change in couples that were low in marital satisfaction and had been married for a longer period of time and (b) how the use of learned competencies might predict improvement in marital satisfaction.

METHOD

PARTICIPANTS

The participants were recruited by means of advertisements in newspapers. The couples in the intervention group responded to an advertisement about CCET, whereas the couples in the comparison group answered a recruitment call for participants in a longitudinal study of predictors of marital functioning. Each couple in the intervention group paid a nominal sum equivalent to $200 to participate in the program.

Because the participating couples were interested in the training and registered for it, we could not randomize them into the two
groups. A waiting list control group was not possible, as the duration of the study (2 years) was too long. Because the purpose of the study was to compare the evolution of two comparable groups, we applied a matching procedure. Thus, our study represents a quasi-experimental design with a matched comparison group. For this purpose, we applied a matching procedure within the 73 couples (intervention group) and 70 couples (comparison group) that had administered all questionnaires within the time period of 2 years. We sought to match the two groups as closely as possible, with the result being that the majority of persons in both groups overlapped such that there were no notable differences between the two groups. This matching procedure resulted in the selection of 59 pairs of couples. By means of a cluster analysis (based on squared Euclidian distances, with Ward agglomeration method), groups of couples with similar profiles on age, duration of the relationship, marital satisfaction, and dyadic coping (both in husbands and wives) were formed. However, as couples self-selected for participation in the CCET, there were a few couples with high marital satisfaction scores who responded to recruitment efforts for the intervention group and a small number of couples with high marital distress who responded to the recruitment efforts for the control group. Because of this, the couples who were excluded because they could not be matched showed lower marital satisfaction, \( t(141) = -3.92, p < .001 \) (in the intervention group). There were no differences (in terms of variables, such as demographic features, length of relationship, marital satisfaction, dyadic coping, etc.), however, between those who were accepted for participation in the study and those who were not. Effects of any potential selection bias are discussed later in this article. The demographic characteristics of the participants at pretest are presented in Table 1.

**MEASURES**

**PARTNERSHIP QUESTIONNAIRE (PARTNERSCHAFTSFRAGEBOGEN)**

The Partnerschaftsfragebogen (PFB) (Hahlweg, 1996) is a 31-item instrument, administered on a 4-point scale. It measures marital quality and satisfaction and consists of three subscales: Quarreling
### TABLE 1
Demographics of the Sample

<table>
<thead>
<tr>
<th></th>
<th>Intervention group&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Comparison group&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Age</td>
<td>39.5</td>
<td>8.0</td>
</tr>
<tr>
<td>Marital quality</td>
<td>2.03</td>
<td>0.4</td>
</tr>
<tr>
<td>(PFB)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married couples</td>
<td>86.4%</td>
<td>86.4%</td>
</tr>
<tr>
<td>Living together</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(common household)</td>
<td>93.0%</td>
<td>96.5%</td>
</tr>
<tr>
<td>Children</td>
<td>71.2%</td>
<td>74.6%</td>
</tr>
<tr>
<td>Elementary school</td>
<td>1.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>High school</td>
<td>8.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>College</td>
<td>66.7%</td>
<td>51.9%</td>
</tr>
<tr>
<td>University</td>
<td>22.8%</td>
<td>48.1%</td>
</tr>
</tbody>
</table>

NOTE: PFB = Partnerschaftsfragebogen (Relationship Questionnaire). The values of the duration of the relationship of the couples in the intervention group are: \( M = 14.4, SD = 9.1 \), Range = 1 to 33. The values of the duration of the relationship of the couples in the comparison group are: \( M = 15.3, SD = 9.4 \), Range = 2 to 37. The percentages of the family income in the intervention group are as follows: Low income is 3.6%, middle income is 56.4%, and high income is 40.0%. The percentage of the family income in the comparison group is as follows: Low income is 14.0%, middle income is 66.7%, and high income is 19.3%.

<sup>a</sup> Intervention group at pretest. Intervention group: \( N = 59 \).

<sup>b</sup> Comparison group at pretest. Comparison group: \( N = 59 \).
(Cronbach’s alpha in our sample, mean for men and women: $\alpha = .89$), Tenderness ($\alpha = .88$), and Togetherness/Communication ($\alpha = .81$). The Cronbach’s alpha of the total score is $\alpha = .90$. The PFB discriminates reliably between distressed and nondistressed couples, allows close monitoring of changes in marital therapy, and demonstrates adequate reliability and validity (Hahlweg, 1996).

**SEPARATION SCALE**

Items measuring thoughts concerning separation or divorce within the Dyadic Adjustment scale (DAS; Spanier, 1976) were used to evaluate plans for separation or divorce. The four-items scale had a Cronbach’s Alpha of .92.

**DYADIC COPING QUESTIONNAIRE (FDCT-N)**

This is a 55-item questionnaire that assesses dyadic coping and communication under conditions of stress. Respondents answer questions about their experience of stress. Items include their own reaction to stress and each partner’s reaction to stress, and both partners assess the various types of positive and negative dyadic coping described earlier in this article. In this study, the following scales of the FDCT-N were used: Stress Communication (e.g., telling the partner about the stress experience, asking the partner for emotional or practical support; 5 items; $\alpha = .80$); Supportive Dyadic Coping—Self (i.e., empathy, understanding, and other forms of supportive coping that the individual directs toward one’s partner; 13 items; $\alpha = .85$); Supportive Dyadic Coping—Partner (i.e., forms of supportive coping that the person reports receiving from one’s partner; 13 items; $\alpha = .91$), and Common Dyadic Coping (e.g., facing the stressful event together, doing relaxation exercises together, mutual comforting, exchanging relevant information with one another about the stressful event; 10 items; $\alpha = .83$). Furthermore, negative dyadic coping (hostile and ambivalent dyadic coping, criticizing the partner while supporting him or her, minimizing the stress of the partner, helping the partner but without real interest or empathy) was assessed with four items for oneself ($\alpha = .75$) and the partner ($\alpha = .78$). Persons rated frequency of dyadic coping on a scale from 0 (never) to 5 (always). The criterion
and construct validity of the FDCT-N have been previously evaluated (Bodenmann, 2000). Cronbach’s alpha was .92 for the entire scale.

PROCEDURE

The effectiveness of the program was tested using a longitudinal design that lasted 2 years. Participants were assessed at five points in time: pretest (2 weeks prior to the intervention), posttest (2 weeks after the intervention), 6-month follow-up, 1-year follow-up, and 2-year follow-up. Questionnaires were mailed to the couples at home. Participants were asked to complete them independently from one another. Here, we present data from these five points of measurement over a 2-year span. (For greater detail about results at posttest and 6-month follow-up, see Bodenmann, Charvoz, Cina, & Widmer, 2001.)

INTERVENTION PROGRAM

Fifty-nine couples participated in the intervention group, which received the CCET (Bodenmann & Shantinath, 2004), which was offered in the form of a weekend course. The program consisted of six modules that spanned a total of 18 hr. All trainings for the intervention group were conducted within a 6-month window of time.

The training was conducted in group format, with the groups consisting of four to eight couples. A ratio of one trainer per two couples was maintained during the exercises (which involved four role plays covering stress communication and dyadic coping, fairness and boundaries, communication training, and problem-solving training). A total of six trainers, all master’s level clinical psychologists, were involved in the study. Standardization among trainers was ensured through the use of a detailed and highly structured manual for trainers (English translation in preparation), used in combination with 30 hr of didactic training carried out over a 4-day period. In addition, each trainer received a total of 20 hr of group supervision before delivering the trainings and was regularly supervised during the entire study. Before delivering the training in the study, each trainer was videotaped and evaluated to ensure competence.
The couples in the comparison group did not receive any intervention at all but were contacted only for the assessments. Help from other sources of mental health assistance (such as marital counselors or psychotherapists) was controlled for in both groups. Couples in both groups were excluded from the study in case they had such contact.

CONTENT OF CCET

MODULE 1: KNOWLEDGE OF STRESS AND COPING

Goals. The primary goal of this module is to improve the participants’ understanding of stress and their ability to discriminate between different kinds of stress-provoking situations. Participants learn to enhance their understanding of stressful situations by using criteria such as controllability, changeability, ambiguity, and certainty.

Content and method of delivery. This module offers the participants an overview of the topic of stress, including its causes, forms, and consequences. Additionally, the central role that subjective understanding of a situation plays in stress perception (e.g., whether it is threatening, damaging, demanding, etc.) is addressed, along with the relationship between emotional reactions and stress (e.g., fear, sadness, anger, etc.). The couples are asked to assess different areas of stress in their own lives (by means of a graphic scale resembling a bar chart).

Theoretical background. This component of the program is based on the stress theory of Lazarus and Folkman (1984), as well as the subsequent development of these perspectives by Perrez and Reicherts (1992).

MODULE 2: IMPROVEMENT OF INDIVIDUAL COPING

Goals. A major goal of this module is to improve individual stress coping skills on different levels (i.e., in anticipation of a stressful situ-
Content and method of implementation. This module encompasses three elements: stress prevention (e.g., through better planning, organizing, enhancing ability to compromise, and boundary setting, etc.), countering stress by building up a repertoire of pleasant events (i.e., enjoyable activities such as relaxation or recreational activities), and, lastly, ways of enhancing coping with stress that is unavoidable.

This section draws on cognitive and behavioral techniques adapted to stress and coping and includes elements such as problem analyses, activity planning, self-observation, time management, cognitive restructuring, self-instruction, and progressive muscle relaxation (see Beck, Rush, Shaw, & Emery, 1979; D’Zurilla & Goldfried, 1971).

Theoretical background. The techniques are drawn from the approaches of Lazarus and Folkman (1984), as well as Perrez and Reicherts (1992). The section on pleasant events is based on Kanner, Coyne, Schaefer, and Lazarus (1981) and Lazarus (1986).

MODULE 3: ENHANCEMENT OF DYADIC COPING

Goals. The primary goal of this module is to increase understanding of the partner’s stress, enhancing stress-related communication, and improving overall dyadic coping skills.

Content and method of implementation. Couples are first given a short introduction to the role of adequate stress communication, which includes telling the partner explicitly what is going on and what kind of support they need, and dyadic coping skills, especially supportive dyadic coping, in dealing with stress. They are then trained via supervised role plays, in ways to tell their partner about the following: their emotional stress (e.g., feelings of sadness, hopelessness, shame, feelings of insecurity, or fear), self-perceived reasons for their stress (e.g., criticism by an important other), and which cognitions and sche-
mata have been activated by this event (e.g., worthlessness, dependency from the evaluation of others, need for gratification, importance of being loved, etc.). Partners are asked to take turns practicing the role of the speaker and caregiver. The speaker is allotted approximately 30 min for emotional stress exploration. Then, the caregiver is asked to provide supportive dyadic coping (e.g., empathy and understanding, solidarity, reframing, trust in the partner, encouragement). In the third phase, the person who role plays the stressed partner gives feedback as to how helpful this support was, how satisfied he or she is with the partner’s support, and what else he or she would have wanted to receive from the partner. The entire exercise takes about 50 min per partner, after which the roles of speaker and caregiver are reversed.

Theoretical background. This module is based on the systemic, process-oriented approach of coping in couples developed by Bodenmann (1997b, in press).

MODULE 4. EXCHANGE AND FAIRNESS IN THE RELATIONSHIP

Goals. The goals of this module are to enhance exchange and fairness in a relationship by focusing on and improving three areas: a couple’s awareness of the importance of a fair and mutual exchange within the context of dyadic coping, enhancing the couple’s ability to detect inequality and dependence in the relationship, and improving sensitivity toward one’s own needs and those of the partner.

Content and method of implementation. The topics of exchange and fairness in a relationship are discussed in the context of giving and taking, while still maintaining clear boundaries that recognize both one’s own needs and the needs of the partner. These are presented along with guidelines regarding distance and closeness in the relationship. In addition, couples are sensitized to boundary problems—overinvolvement, dependence, or selfishness—which can result from a negative style of dyadic coping and also be a factor that subsequently affects the quality and usefulness of dyadic coping. They participate in diagnostic exercises and engage in supervised role playing that allows them to explore theirs needs, boundaries, and the issue of distance and closeness in their relationship.
Theoretical Background. These issues are based on the concepts of Minuchin (1974) and Thibaut and Kelley (1959) and the equity theory of Walster, Walster, and Berscheid (1978). In addition, the research and theoretical considerations of Christensen and Shenk (1991) and Jacobson (1992), with regard to intimacy and autonomy, are also considered.

MODULE 5: IMPROVEMENT OF MARITAL COMMUNICATION

Goals. A major goal of this module is to improve marital communication by focusing on the speaking and listening skills of both partners. Additionally, each partner’s ability to detect inadequate communication behavior is emphasized.

Content. First, negative communication patterns, as well as constructive communication behavior, are presented. The importance of an adequate communication style for the success of the relationship is emphasized. Participants engage in short diagnostic exercises to help them better identify and understand dysfunctional communication within their relationship. The main activity in this section consists, however, of supervised role plays within the framework of communication training (Jacobson, 1977).

Theoretical background. This section is based on classical and social learning theories and their application within the context of dyads, as well as the latest research findings on marital communication (Gottman, 1994; Gottman et al., 1998; Karney & Bradbury, 1995; Weiss & Heyman, 1997).

MODULE 6: IMPROVEMENT OF PROBLEM-SOLVING SKILLS

Goals. The goal of this module is to make couples aware of the importance of constructive problem solving and to strengthen their mutual problem-solving skills.

Content and method of implementation. Intervention methods consist of supervised role playing of problem-solving situations within a

Theoretical background. This section draws from the problem-solving training of D’Zurilla and Goldfried (1971) and the subsequent version adapted for couples (Jacobson, 1977).

RESULTS

To evaluate differences between the intervention and the comparison group, repeated measures analyses of covariance were conducted for dyadic coping and marital quality variables, with the group as a two-levels between factor, time as a four-levels within factor (posttest versus 6 months versus 1 year versus 2 years), and gender as a two-levels within factor, to take into account the interdependence between husbands’ and wives’ scores. In all analyses, pretest scores were used as covariates.

CHANGES IN MARITAL QUALITY

Differences in marital quality between the intervention and comparison group across the four measures were tested by a MANCOVA conducted on the three subscales of the PFB (Quarreling, Together-ness/Communication, Tenderness) and the DAS score, controlling for pretest scores on the four variables.

Results show a significant group main effect, $F(1, 108) = 5.04, p < .05, \eta^2 = .05$ (see Table 2), with a higher overall marital quality in the intervention couples across the four time points (i.e., from 15 days postintervention to the 2-year follow-up). In both groups, women also report to be marginally more satisfied than men, sex main effect, $F(1, 108) = 3.64, p < .10, \eta^2 = .03$.

Within the different subscales of the PFB, although the intervention group always showed scores reflecting a higher quality than the comparison group, the improvement across the four time points
### TABLE 2
Means and Standard Deviations in Intervention and Comparison Groups at Pretest, Posttest, 6 Months, 1 Year, and 2 Years

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th></th>
<th>Men</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
<td>Posttest</td>
<td>6 Months</td>
<td>1 Year</td>
</tr>
<tr>
<td>Intervention group—Marital satisfaction</td>
<td>2.03(0.4)</td>
<td>2.12(0.3)</td>
<td>2.09(0.4)</td>
<td>2.10(0.4)</td>
</tr>
<tr>
<td>PFB score Thoughts about divorce—DAS score</td>
<td>0.73(0.4)</td>
<td>0.61(0.4)</td>
<td>0.63(0.4)</td>
<td>0.68(0.4)</td>
</tr>
<tr>
<td>Stress communication Positive supportive dyadic coping of the partner</td>
<td>3.72(0.8)</td>
<td>3.86(0.7)</td>
<td>3.75(0.7)</td>
<td>3.77(0.7)</td>
</tr>
<tr>
<td>Positive supportive dyadic coping of oneself</td>
<td>3.41(0.9)</td>
<td>3.70(0.6)</td>
<td>3.59(0.7)</td>
<td>3.68(0.7)</td>
</tr>
<tr>
<td>Negative dyadic coping of the partner</td>
<td>2.20(0.7)</td>
<td>1.94(0.6)</td>
<td>2.07(0.7)</td>
<td>1.97(0.6)</td>
</tr>
<tr>
<td>Negative dyadic coping of oneself</td>
<td>3.85(0.8)</td>
<td>3.94(0.7)</td>
<td>3.87(0.8)</td>
<td>3.85(0.7)</td>
</tr>
<tr>
<td>Common dyadic coping</td>
<td>1.12(0.7)</td>
<td>1.39(0.5)</td>
<td>1.37(0.7)</td>
<td>1.35(0.5)</td>
</tr>
<tr>
<td></td>
<td>Comparison group</td>
<td></td>
<td></td>
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<tr>
<td>------------------------</td>
<td>------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marital satisfaction—PFB score</strong></td>
<td>2.09(0.4) 2.07(0.4) 2.06(0.4) 2.04(0.4) 2.03(0.4) 1.99(0.4) 1.99(0.3) 2.00(0.4) 1.98(0.3) 2.02(0.4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Thoughts about divorce—DAS score</strong></td>
<td>0.54(0.4) 0.53(0.3) 0.61(0.3) 0.55(0.3) 0.62(0.4) 0.56(0.3) 0.53(0.3) 0.54(0.3) 0.58(0.4) 0.55(0.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stress communication</strong></td>
<td>3.87(0.9) 3.82(0.7) 3.74(0.8) 3.81(0.8) 3.87(0.8) 3.24(0.7) 3.25(0.7) 3.29(0.8) 3.35(0.8) 3.30(0.7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Positive supportive dyadic coping of the partner</strong></td>
<td>3.64(0.9) 3.65(0.8) 3.58(0.8) 3.60(0.8) 3.59(0.8) 3.50(0.7) 3.53(0.8) 3.50(0.8) 3.57(0.7) 3.57(0.8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Negative dyadic coping of the partner</strong></td>
<td>2.12(0.7) 2.12(0.7) 2.07(0.6) 2.09(0.6) 2.03(0.7) 1.72(0.4) 1.60(0.4) 1.64(0.5) 1.65(0.5) 1.59(0.5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Positive supportive dyadic coping of oneself</strong></td>
<td>3.71(0.7) 3.70(0.8) 3.66(0.7) 3.62(0.7) 3.73(0.7) 3.85(0.7) 3.83(0.7) 3.85(0.7) 3.84(0.7) 3.95(0.8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Negative dyadic coping of oneself</strong></td>
<td>2.02(0.5) 1.98(0.4) 2.01(0.5) 1.99(0.5) 2.03(0.5) 2.05(0.5) 2.00(0.5) 1.97(0.5) 1.89(0.5) 1.91(0.5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Common dyadic coping</strong></td>
<td>1.28(0.7) 1.29(0.7) 1.31(0.8) 1.29(0.7) 1.24(0.6) 1.41(0.6) 1.44(0.6) 1.47(0.7) 1.43(0.6) 1.51(0.6)</td>
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**NOTE:** PFB = Partnerschaftsfragebogen (Relationship Questionnaire); DAS = Dyadic Adjustment scale.
did not reach significance, group main effect for Tenderness, $F(1, 114) = 1.69, \text{ ns}$, for Quarreling, $F(1, 114) = 1.52, \text{ ns}$, and for Togetherness/Communication, $F(1, 114) = 2.57, \text{ ns}$. For this latter scale, the intervention group showed a much improved score after the intervention and then maintained a stable level close to the one they had at the pretest, whereas the comparison group reported a regular decline over time, time $\times$ group interaction effect, $F(3, 112) = 2.72, p < .05, \eta^2 = .07$. The couples that had participated in the CCET did not significantly differ from the comparison group, regarding their thoughts about divorce within two years, $F(1, 114) = 0.27, \text{ ns}$ (see Figure 1).

Results are stronger when the analysis is restricted to the posttest and follow-ups at 6 months and 1 year. Across these three time points, overall marital quality is significantly higher in the intervention group, $F(1, 108) = 5.87, p < .05, \eta^2 = .05$, with higher scores on the subscale, Tenderness, $F(1, 114) = 3.46, p < .10, \eta^2 = .03$, and Togetherness/Communication, $F(1, 114) = 2.90, p < .10, \eta^2 = .03$.

Improvement in marital quality is, thus, obvious within a period of 1 year after the intervention but seems to weaken after 2 years. It also appears to be more a matter of cumulative effects over the various facets of marital quality, rather than of changes in some specific aspects.

**CHANGES IN DYADIC COPING**

A MANCOVA on the six subscales of the FDCT-N (Stress Communication, Supportive Dyadic Coping—self positive and negative, Supportive Dyadic Coping of the Partner—positive and negative, and Common Dyadic Coping), controlling for pretest scores on the five variables, assessed the differences in dyadic coping between the intervention and comparison group across the four postintervention measures.

Across the six measures, dyadic coping was not significantly better in couples that took part in the prevention program (group main effect, $F[1, 100] = 2.46, \text{ ns}$), with stronger differences between the two
groups on some measures than on others (group \( \times \) measure interaction effect, \( F[5, 96] = 2.21, p < .10, \eta^2 = .10 \)), as both groups, the intervention as well as the comparison group, reported an increase of these categories, \( F(5, 960) = 4.03, p < .01, \eta^2 = .17 \).

Figure 1. Evolution of nonquarreling, tenderness, and togetherness over the five time points in the intervention group and comparison group (pooled results for men and women and mean and standard error of the mean).
STRESS COMMUNICATION

Across the four time points, we did not observe a significant difference between the intervention and comparison groups in the way couples express their stress to their partner, group main effect, $F(1, 110) = 1.58, ns$. The results remain identical when the follow-up at 2 years is not considered (see Table 2).

SUPPORTIVE DYADIC COPING OF THE PARTNER

Over the 2-year period following the intervention with pretest scores as covariables, the partner’s positive supportive dyadic coping is evaluated as significantly stronger in the intervention group, group main effect, $F(1, 111) = 4.19, p < .05, \eta^2 = .04$, whereas negative dyadic coping did not differ, group main effect, $F(1, 111) = 0.97, ns$. In both groups, women, more often than men, reported receiving positive supportive dyadic coping, $F(1, 111) = 6.40, p < .05, \eta^2 = .05$, and negative dyadic coping, $F(1, 111) = 18.08, p < .001, \eta^2 = .14$, from their spouses (see Table 2).

SUPPORTIVE DYADIC COPING BY ONESELF

After controlling for pretest scores, reports of one’s own negative dyadic coping decreased significantly in the intervention group over the four postintervention measurements, $F(1, 111) = 9.60, p < .01, \eta^2 = .08$, whereas self-positive supportive dyadic coping was also stronger but not significant, group main effect, $F(1, 111) = 2.32, ns$. Effects were more powerful when restricting the analyses to the first three time points after the intervention (post, 1. follow-up, 2. follow-up): the intervention group reports, significantly less self-negative dyadic coping, and marginally more self-positive supportive dyadic coping, and positive supportive dyadic coping (group main effects, respectively, $F[1, 113] = 7.61, p < .01, \eta^2 = .06$ and $F[1, 113] = 3.28, p < .10, \eta^2 = .03$). Although these effects appear to be stronger among women than among men, no significant interaction effect was observed for gender.
COMMON DYADIC COPING

The MANCOVA, on the four postintervention measures with pre-scores as covariates, revealed significantly better common dyadic coping in the intervention group, group main effect, $F(1, 111) = 4.88$, $p < .05$, $\eta^2 = .04$, with a stronger difference between the intervention and comparison group among women, sex × group interaction effect, $F(1, 111) = 4.62$, $p < .05$, $\eta^2 = .04$. If we consider only the first three post-intervention measures, both effects remain identical, group main effect, $F(1, 113) = 5.64$, $p < .05$, $\eta^2 = .05$, and sex x group interaction effect, $F(1, 113) = 4.62$, $p < .05$, $\eta^2 = .04$.

In line with results regarding marital quality, dyadic coping is clearly enhanced among couples that participated in CCET. The ability to jointly deal with stressors that concern both partners (i.e., common dyadic coping) remains better even after 2 years, particularly from the point of view of the women. Other facets of dyadic coping have been improved by the intervention, as one’s own positive dyadic coping and the positive supportive dyadic coping of the partner (more positive supportive dyadic coping and less negative dyadic coping), although these changes seemed to weaken after 2 years. Stress signaling was the only variable that was not significantly improved after the intervention. This could be, in part, because of the already high level of signaling reported at pretest.

THE USE OF LEARNED TECHNIQUES AND THEIR PREDICTION OF IMPROVEMENT

At each follow up, the couples were asked what and how often they were using the different elements of CCET in their everyday life. The results show that 33% of the couples reported using the learned techniques regularly in their daily life, 60% said that they used those skills from time to time, and only 7% reported not applying the methods learned in the training in their daily lives. Irregular users and nonusers of the training were asked about reasons for not regularly using what they had learned in CCET. Eighteen percent of these persons reported feeling not sufficiently motivated, 56% mentioned a lack of time, and
63% mentioned that the old patterns of behavior were stronger than the new ones. Thirty-two percent of the participants argued that they would need more supervision and help in performing the competencies regularly (persons could give more than one answer).

The most often applied techniques were enhancing fairness in the couple \((M = 1.80, SD = .46)\), followed by explicit stress communication \((M = 1.63, SD = .35)\) and using the communication techniques \((M = 1.54, SD = .45)\), all means indicating a frequent use. It is noteworthy that the relaxation technique \((M = 0.69, SD = .77)\) was only rarely used. An interesting finding was that the internal consistency of the 13 items, assessing what elements the couples still used after the training in everyday life, was .79 for women and .83 for men. This reflects that couples who reported that they were still using different techniques learned in the CCET, did so for most of the strategies. There also seems to be a certain consistency over time in the use of the techniques learned in CCET. Thus, correlations between the first and the second follow-up were .43 for women and .50 for men. The correlations between the follow-ups after 1 and 2 years were .68 for women and .70 for men. For testing the significance of the use of learned techniques in CCET, with regard to improvements in marital variables, the average score of all techniques used across the four measures (i.e., techniques used at post, 1. follow-up, 2. follow-up, 3. follow-up) was taken into account.

MANCOVAs with time as a four-levels within factor (posttest versus 6 months versus 1 year versus 2 years), gender as a two-levels within factor, and pretest scores as covariates were computed for couples in the intervention group, entering the amount of use of the techniques learned for husbands and wives as two additional two-levels between factors. Results in the area of marital satisfaction show that high-user couples reported a significantly higher PFB total score when women, \(F(1, 54) = 4.43, p < .05, \eta^2 = .08\), and men, \(F(1, 54) = 6.13, p < .05, \eta^2 = .10\), were using the learned skills in their everyday life. At the same time, they show a significantly lower DAS score (e.g., fewer thoughts about divorce) when men are in the high utilization group, \(F(1, 54) = 9.78, p < .01, \eta^2 = .15\), an effect which is not found in women, \(F(1, 54) = 1.35, ns\). Similar findings were found with regard to dyadic coping. Again, couples in the high exercise group
reported a higher dyadic coping score 2 years after the training than did couples with a low utilization of the learned skills. When women, \( F(1, 53) = 4.06, p < .05, \eta^2 = .07 \), and men, \( F(1, 53) = 11.87, p < .001, \eta^2 = .18 \), were regularly practicing the dyadic coping skills taught in CCET, they experienced better dyadic coping in their everyday life. Thus, when each partner used the techniques he or she learned in the CCET more frequently, the couple shows a higher marital satisfaction and better dyadic coping competencies across the four postintervention measurements. This demonstrates that regular use of the learned skills enables a couple to maintain the positive effects of the training, even 2 years later.

**DISCUSSION**

This study evaluated the impact of a marital distress prevention program (CCET), which is based on the existing body of empirical and theoretical research on marriage and stress psychology and focuses on the enhancement of dyadic coping resources in couples. Because stress has a negative effect on marriage (e.g., deterioration of dyadic communication quality, lack of time for the relationship; Bodenmann, 2000; Karney & Bradbury, 1995; Karney, Story, & Bradbury, in press), it is crucial to strengthen individual and dyadic coping resources in couples to help them maintain a high level of marital quality or improve it in situations that have experienced a decline in marital quality (Bodenmann, in press). The CCET is the first couple’s distress prevention program that goes beyond teaching communications skills; it also addresses the enhancement of individual and dyadic coping skills in couples. As communication deficits often occur because of insufficient stress reduction on the part of both partners (e.g., spill over of stress from outside of the relationship into the couple’s life), it is important not only to improve communication skills but also to enhance coping strategies in the individual and within the couple.

This study examined the effectiveness of the CCET using middle-aged couples who had been living together for several years and who were showing a somewhat low level of marital quality at the time of
the intervention. Although this intervention may not be considered primary prevention because many couples had already experienced stress and distress in their marital life, we consider this nevertheless to constitute prevention, in the sense of indicated prevention (Mrazek & Haggerty, 1994), as couples were able to enhance or strengthen their competencies before reaching a point of severe marital crisis.

The results indicate that global marital quality improved significantly among couples who took part in the intervention program. Substantial improvement was noted in the intervention group, which then showed some decline over time, in a proportion similar to what was observed in the comparison group. Among the various aspects that comprise marital quality, significant changes were found on the subscales measuring tenderness and togetherness or communication. Additionally, positive changes, as reflected in the total score of the PFB, appear to also be linked to cumulative effects more than all of the various facets of marital quality. Positive dyadic coping, an important element of marital competency, was found to be enhanced in terms of both the amount and stability over time. In particular, supportive dyadic coping (of oneself and of the partner) and common dyadic coping were increased, and negative dyadic coping was decreased in the intervention group, whereas no change was found in stress communication. It is noteworthy that both genders reported similar changes on most measures, with the exception of women reporting greater levels of change in common dyadic coping and negative dyadic coping than the men.

In general, the effects tended to be weaker after 2 years. In terms of effect sizes, the majority of the differences between the intervention group and the comparison group explained approximately 5% of the variance in the data. Although such an effect size may be considered small, it is, at the same time, notable if we keep in mind that this change is a result of an intervention, which lasted only 18 hr, was delivered in a group setting, and was assessed within a period of 2 years after the participation in the CCET. The outcomes of the CCET, thus, show a greater probability of positive change than was found in other programs that looked at couples who had been in relationships of longer duration or couples at high risk for marital distress (Halford et al., 1996; Van Widenfelt et al., 1996).
On the other hand, our data also highlight the fact that this short intervention (typically lasting 18 hr over one weekend) is not always enough to foster marital quality over a longer period, as is illustrated by the weakening of the training’s effects over time. As the analyses on the use of the learned skills in everyday life reveal, couples applying those competencies regularly benefited significantly more than those who either used their newly acquired skills sporadically or not at all. Thus, regular booster sessions following the initial training would help couples to maintain and strengthen their competencies over time and help them overcome dysfunctional interaction and coping patterns in their everyday marital life. Another option could be to space out the modules of the CCET (over a span of weeks or months) and encourage couples to regularly practice the newly learned skills. Doing so offers the trainer the possibility of giving the couple more feedback and encouragement than is normally possible in a more condensed block format. Such a delivery schedule might improve the utilization and maintenance of the new skills and should be assessed in future studies.

The biggest limitation of this study is that it was not possible to use a randomized control trial design because a waiting-list control group was not possible because of the study’s 2-year duration. Additionally, because of the participants’ high interest in receiving the intervention, it was not possible to assign them to a waiting group or an alternative treatment group. To maximize the comparability of the groups, a matching procedure using important couple’s characteristics was used. However, such a procedure has the disadvantage of creating a selection bias because persons who were excluded from the analyses demonstrated a lower level of pretest marital satisfaction than those who were included in the study. As a result, there might be limits to the generalization of these findings. Additional analyses, including all participants (N = 73 intervention couples and N = 70 comparison couples), revealed, however, that all group main effects remained similar, with only two exceptions: for tenderness, in which the effect became marginally significant, and for positive dyadic coping, which was not significant at the second follow-up. This result supports the notion that the selection bias should not be a matter of great importance. Another question that remains unanswered in this study is whether the
fact that couples participating in the CCET also paid $200 influenced positive changes in their behaviors. It is possible that the fact that they had to pay for the intervention was correlated with higher motivation to enhance their relationship and use what they had learned in the training. This argument, however, is not supported by our data. Only 33% of the couples participating in the CCET used the learned skills regularly in their daily life after the training (up to 2 years later), whereas others used the learned elements from time to time. Thus, even paying for the program does not ensure a regular use of the learned skills.

In face of these encouraging results, obtained with a sufficient sample size according to Cohen’s (1988) effect size estimation, where 50 couples per group were needed for a medium effect size on the \( \alpha = .05 \) level of significance, we are convinced that marital distress prevention programs for couples will gain even more importance in the future, not only in terms of programs for the primary prevention of marital distress (e.g., with newlywed couples) but also in terms of programs that help couples stay together by helping to maintain their initial level of marital quality or by enhancing marital quality that may have eroded over time because of stress. Although the CCET is especially indicated for persons experiencing high stress in everyday life (e.g., police personnel, physicians, dual career couples, new parents, etc.), it is also suitable for newlywed couples as well as for couples who have been in a relationship of longer duration. It is, however, not recommended for couples wanting to divorce or for those in severe crisis where marital counseling or therapy is necessary.

Stress and coping is an important topic for both researchers and practitioners who work with couples. We hope that interest in this area, especially with regard to the implications of this line of research on the importance of stress management in the development of close relationships and for the prevention of marital distress, will continue to grow in the years to come. We hope that the topic of stress and couples will be of increasing interest to researchers, as well as therapists in the future, and that future studies will further evaluate the importance of stress management in the development of close relationships and in research on distress prevention and couples therapy.
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